

PERIODIC TRENDS GRAPHING ACTIVITY

Atomic #	O atoms per E
1	0.5
2	0
3	0.5
4	1
5	1.5
6	2
7	2.5
8	1
9	0.5
10	0
11	0.5
12	1
13	1.5
14	2
15	2.5
16	1
17	0.5
18	0
19	0.5
20	1

Atomic #	Boiling Point (K)
1	21
2	4
3	1600
4	2780
5	2800
6	
7	77
8	90
9	85
10	27
11	1162
12	1390
13	2600
14	2950
15	553
16	718
17	239
18	87
19	1030
20	1760

2 Bar Graphs

Atomic # on x-axis

Label axes

Write a title for each

Answers questions

Label each bar with element symbol

Questions:

- Go to <http://www.m-w.com>
 - Look up "periodic" and write its definition.
 - Click on the synonym, "cyclic" and write its definition.
- Does either graph reveal a repeating, or cyclic, pattern? Why or why not?
- Describe any patterns you observe. (Example: Look at all elements that have 2 oxygen atoms per element and see where they are located on the periodic table.)
- Why is the chemists organization of elements called a *periodic* table? (Hint: Consider the definitions of periodic and cyclic.)
- Where are the elements with the highest oxide numbers located on the Periodic Table?
- Where are the elements with the highest boiling points located on the Periodic Table?
- Explain any trends you noted in your answers to Questions 5 and 6.